▣ GP(Graphic Panel)?

GP-S044 GP-S057 GP-S070

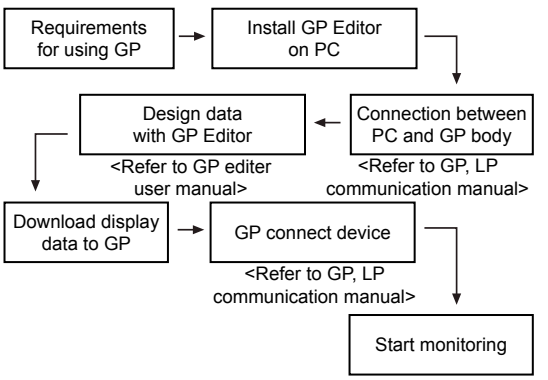
Graphic panel is HMI(Human Machine Interface) device that parameter monitors or changes via graphic interface by communication with PLC, temperature controller or other control units.
Graphic interface of GP is very effective to indicate value or status of parameter with visual interface that enables the communication between controller and user.
GP is able to monitor parameters virtually with LCD screen, switch screen by touching screen, set or change parameters. GP connecting with controller via serial communication method translates data and displays various control parameters with graphic.
For example, in case of the target of parameters is the temperate, the numerical value of temperature is shown with a tag and the change in temperature for time can be graphed on the screen.

▣ Preparation for using GP

The numerical value of temperature | Graph of temperature

1) GP body
2) PC
3) GP Editor
   - Software for drawing GP screen
4) Manual
   - GP editor user manual
   - LP, GP Communication manual
   - GP-S044/S057, GP-S070 user manual
5) Communication cable
   - Communication cable for PC connection
   - Communication cable for controller connection
6) Access devices
   (PLC or controller built in communication ports)

▣ Basic operation flow



▣ Advantages of using GP

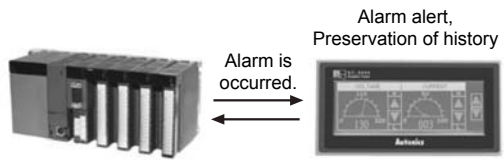
◎ Complicated environment of operation and control

It graphicalizes mechanical control components such as button, switch and lamps so that saves cost and space and improves the preservation of devices.

Control part | GP-S044

◎ Setting and change of production process

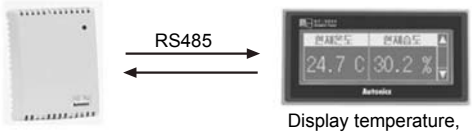
It graphicalizes mechanical control components such as button, switch and lamps so that saves cost and space and improves the preservation of devices.



PLC | GP-S044

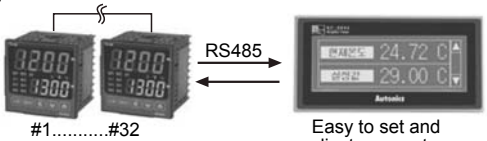
◎ Convenient setting by user

It sets complicated or non-displaying controller (Thermometer/hygrometer, temperature controller etc).
1)Temperature/Humidity without display device



Display temperature, humidity

2)Temperature controller



#1.....#32 | Easy to set and adjust parameter.

◎ Effective data control

It prints alarm history of controller using printer. It reads the data from barcode reader and save it in PLC.
1)PLC/Printer

PLC | GP-S044 | Printer

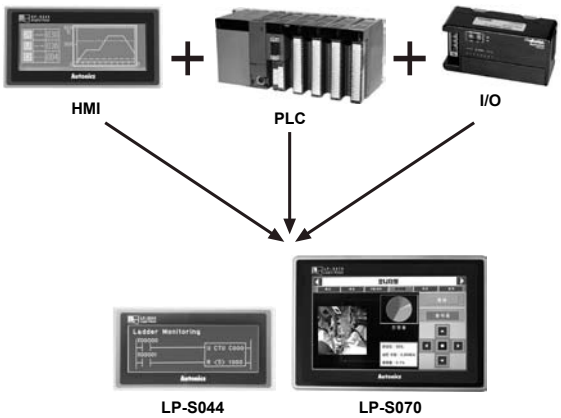
2)Barcode reader/PLC

GP-S044 | PLC

◎ Communication between heterogeneous controllers

PLC | GP-S044 | Thermometer/ hygrometer

▣ LP(Logic Panel)?

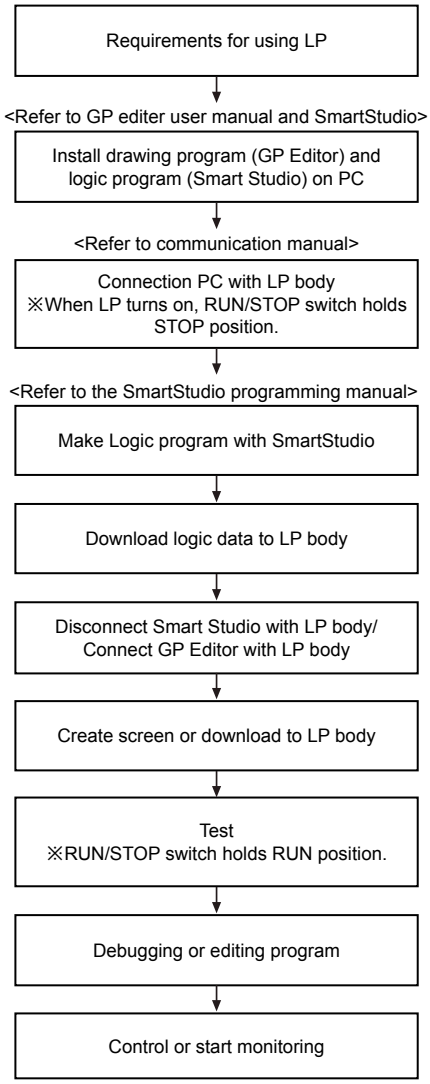


Logic panel is created for integrated panel in most demanding industrial environments that have been consisted of HMI, PLC and I/O. The LP through integration realizes cost down, wire reduction, space saving and enhanced user friendliness. The logic panel perfectly supports serial communication and editing display with GP Editor and about 250 commands of SmartStudio invented on our own to edit PLC ladder/mnemonic, allowing accelerating product development and designing. And also this device can control and monitor various output devices (sensors, button, etc) and output devices (solenoid, lamp, motor, etc) individually.

▣ Preparations for using LP

1) LP body
2) PC
3) Software
   ① GP Editor
   - Software for drawing LP screen
   ② SmartStudio
   - Software for logic program
4) Manual
   - GP Editor user manual
   - GP,LP Communication manual
   - SmartStudio user manual
   - SmartStudio programming manual
   - LP-S044, LP-S070 user manual
   - LP series command manual
5) Communication cable
   - Communication cable for PC connection
   - Communication cable for controller connection
6) Access device
   (PLC or controller built in communication ports)

▣ Basic operation flow

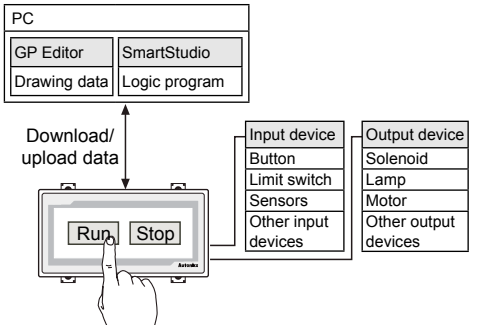


※Refer to the manual for details on website(www.autonics.com) resources.

▣ System configurations

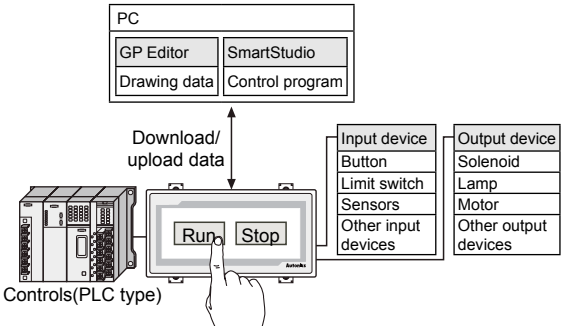
◎ Stand alone(LP Series)

Stand alone system in LP series controls a variety of I/O without adding other devices and monitors and control operation element through direct touch of screen. (device, parameter, etc.)



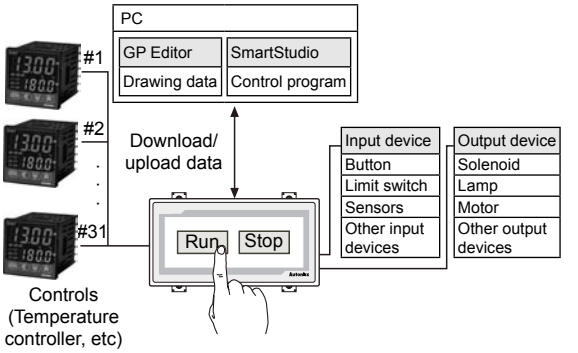
◎ 1:1 configuration (LP/GP Series)

The device function makes it possible to monitor the operation data (Device, parameter, etc.)



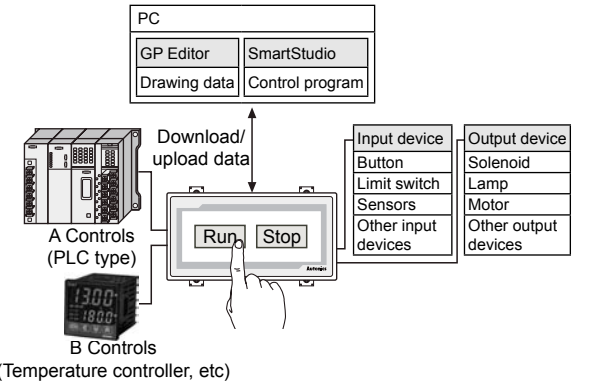
◎ 1:N configuration (LP/GP Series)

The device function makes it possible to monitor the operation element (device, parameter, etc.) by connecting in a 1:N configuration (Up to 32 units)



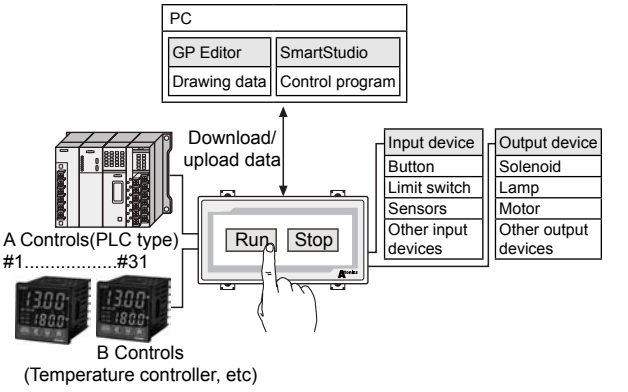
◎ 1:1:1 configuration (GP/LP Series)

The device function makes it possible to monitor, control and the operation element (device, parameter, etc.) between different devices using two separate communication port.



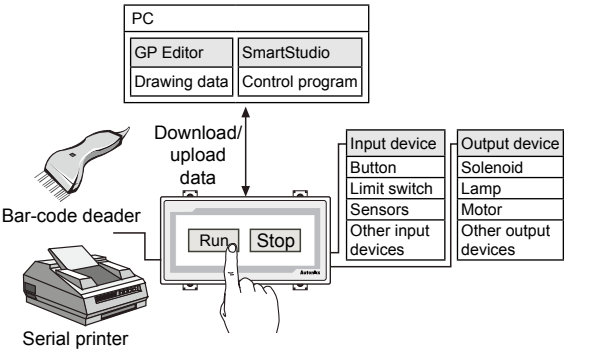
◎ 1:1 N configuration (GP/LP Series)

The device function makes it possible to monitor, control and the operation element (device, parameter, etc.) between different devices using two separate communication port.. In case of RS-422 port, 1:N is available only. (Up to 31 units).



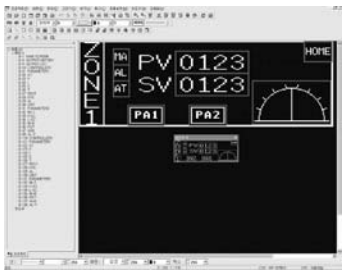
◎ Bar-code, printer connection (GP/LP Series)

It can read bar-code and print a history using printer.



▣ Software

◎ GP Editor(Drawing program)



- This drawing software is for GP/LP series.
- GP Editor is the software that allows creating a screen and designs a tag layout, and then transfer the data from screen to GP/LP. After download, GP/LP starts monitoring according to your screen data.

◎ SmartStudio(Logic program)

- Logic software is for LP series.
- Support multi-project
  : It is possible to open maximum 5 projects at a same time.
- Easy program editing
  : Block of cell units can be edited.
  Split-screen editing is available.
  It provides various editing screens such as variable screen, describe screen, variable /describe screen, etc,.
- Various monitor functions
  : It provides monitor functions such as variable monitor, device monitor and system monitor, time chart.
- Comfortable user interface
  : It ensures easy operation with Microsoft windows layout.
- Wide range of Message windows
  : It supports various message windows to edit and check program.
- Real time convert ladder to mnemonic
  : Ladder and mnemonic can be written and read to edit simultaneously.

Visit our website (www.autonics.com) and download software or manuals.

< System requirements >

Item	Minimum requirements
System	IBM PC compatible computer with Intel Pentium III or above
Operating system	Microsoft Windows 98/NT/XP/Vista/7
Memory	256MB or more
Hard disk	More than 1GB of free hard disk space
VGA	1024×768 or higher resolution display
Others	RS-232 serial port(9-pin), USB port

▣ Manual

◎ GP/LP common manual

- GP Editor user manual
  This section describes how to make screen data and use HMI function with GP Editor.
- Communication manual
  For more information of serial connection with external devices such as PLC, refer to manual before connecting.
- GP-S044/S057, GP-S070 user manual
  The manual describes installation and system organization and menus.

◎ LP manual

- SmartStudio manual
  This section describes how to install and use SmartStudio.
- Programming manual
  The manual has command and instruction.
- LP-S044, LP-S070 user manual
  The manual describes installation and system organization and menus.
- LP Series instruction manual
  The manual has LP installation, system configuration and instruction.

▣ Precaution for using

- Do not press touch panel with hard and sharp object.
- Please store the device in the recommended temperature range, or LCD panel can be damaged.
- Please check pin number shown in "Communication manual" when connect communication port
- Do not block the ventilating opening of this product.
- Do not use or store it in a place with direct ray of light or dust.
- Do not use or store it in a place with shock or vibration.
- The ground wire of GP/LP should be grounded separately. The ground resistance should be max. 100Ω, please use the wire of min. 1.25mm² dimension.
- Please check the pin number and connect to GP/LP communication port.
- Please tighten bolt on terminal block with specified tightening torque.
- When liquid crystal from the broken LCD is smeared on your skin, wash it for 15 minutes. If it is gotten in your eye, wash it for 15 minutes and contact a medical specialist for more information.
- Do not inflow dust or wire dregs into the unit.
- For cleaning, do not use water or an oil-based detergent, use dry towels.
- It should be done away regarded as an industrial waste.

▣ Connectable device with GP/LP

Series	Connectable device	Connection type	GP-S057	GP/LP-S044	GP/LP-S070
LS Master-K	MK-10S1	CPU direct connection loader	○	○	○
	MK-80S	CPU direct connection loader	○	○	○
	MK-120S	CPU direct connection loader	○	○	○
	MK-200S	CPU direct connection loader	○	○	○
	MK-300S	CPU direct connection loader	○	○	○
	MK-1000S	CPU direct connection loader	○	○	○
LS Glofa	GM4	CPU direct connection loader	○	○	○
	GM6	CPU direct connection loader	○	○	○
	GM7U	CPU direct connection loader	○	○	○
LS CNET (Cnet integrated CPU)	MK-80S	Cnet	○	○	○
	MK-120S	Cnet	○	○	○
	MK-200S	Cnet	○	○	○
LS CNET (For Cnet unit)	MK-80S	Cnet	○	○	○
	MK-120S	Cnet	○	○	○
	MK-200S	Cnet	○	○	○
	MK-300S	Cnet	○	○	○
	MK-1000S	Cnet	○	○	○
LS XGT(For Cnet unit)	XGK- PUS	Cnet	○	○	○
LS XGB (Cnet integrated CPU)	XBM	Cnet	○	○	○
	XBC	Cnet	○	○	○
LS XGB (For Cnet unit)	XBM	Cnet	○	○	○
	XBC	Cnet	○	○	○
OEMAX (SAMSUNG)	N70	Cnet	○	○	○
	N70Plus	Cnet	○	○	○
OEMAX FARA	NX7	CPU direct connection loader	○	○	○
	NX70	CPU direct connection loader	○	○	○
MITSUBISHI FX	FX1S	CPU direct connection loader	○	○	○
	FX1N	CPU direct connection loader	○	○	○
	FX2N	CPU direct connection loader	○	○	○
	FX2NC	CPU direct connection loader	○	○	○
	FX3U	CPU direct connection loader	○	○	○
MITSUBISHI Q (For Cnet unit)	Q00J	Cnet	○	○	○
	Q00	Cnet	○	○	○
	Q01	Cnet	○	○	○
	Q02	Cnet	○	○	○
	Q02H	Cnet	○	○	○
	Q06H	Cnet	○	○	○
	Q12H	Cnet	○	○	○
	Q25H	Cnet	○	○	○
NAIS FP	FP0-C10	CPU direct connection loader	○	○	○
	FP0-C14	CPU direct connection loader	○	○	○
	FP0-C16	CPU direct connection loader	○	○	○
	FP0-C32	CPU direct connection loader	○	○	○
	FPG- C24R2	CPU direct connection loader	○	○	○
	FPG- C32T	CPU direct connection loader	○	○	○
	FPG- C32T2	CPU direct connection loader	○	○	○
	FP0R-C10	CPU direct connection loader	○	○	○
	FP0R-C14	CPU direct connection loader	○	○	○
	FP0R-C1	CPU direct connection loader	○	○	○
	FP0R-C32	CPU direct connection loader	○	○	○
	FP0R-T32	CPU direct connection loader	○	○	○
	FP0R-F32	CPU direct connection loader	○	○	○
SIEMENS SIMATIC S7-200	CPU221	CPU direct connection loader	○	○	○
	CPU222	CPU direct connection loader	○	○	○
	CPU224	CPU direct connection loader	○	○	○
	CPU224XP	CPU direct connection loader	○	○	○
	CPU224XPsi	CPU direct connection loader	○	○	○
	CPU226	CPU direct connection loader	○	○	○

▣ Connectable device with GP/LP

Series	Connectable device	Connection type	GP-S057	GP/LP-S044	GP/LP-S070
SIEMENS SIMATIC S7-300	CPU312	CPU direct connection loader	○	○	○
	CPU312C	CPU direct connection loader	○	○	○
	CPU313C	CPU direct connection loader	○	○	○
	CPU313C-2	CPU direct connection loader	○	○	○
	CPU314	CPU direct connection loader	○	○	○
	CPU314C-2	CPU direct connection loader	○	○	○
	CPU315-2	CPU direct connection loader	○	○	○
	CPU317-2	CPU direct connection loader	○	○	○
	CPU319-3	CPU direct connection loader	○	○	○
Allen-Bradley	MicroLogicx 1000	CPU direct connection loader	○	○	○
	MicroLogicx 1200	CPU direct connection loader	○	○	○
	MicroLogicx 1500	CPU direct connection loader	○	○	○
OMRON SYSMAC C	CPM 1A	CPU direct connection loader	○	○	○
OMRON Temperature controller	E5AN	Modbus	○	○	○
	E5AR	Modbus	○	○	○
	E5CN	Modbus	○	○	○
	E5EN	Modbus	○	○	○
	E5ER	Modbus	○	○	○
AUTONICS	MT Series	Private communication	○	○	○
		Modbus	○	○	×
		Modbus(TYPE A)	○	○	○
	MP Series	Private communication	○	○	○
	THD Series	Modbus	○	○	×
		Modbus(TYPE A)	○	○	○
	TZ Series	Private communication	○	○	○
	TK Series	Modbus	○	○	×
		Modbus(TYPE A)	○	○	○
	TM Series	Modbus	○	○	×
		Modbus(TYPE A)	○	○	○
	CT Series	Modbus	○	○	×
		Modbus(TYPE A)	○	○	○
	DS/DA Series	Modbus(TYPE A)	○	○	○
	ARM Series	Modbus(TYPE A)	○	○	○
	LP-S044, LP-S070	CPU	○	○	○
			○	○	○
KONICS	DPU Series	Modbus	○	○	×
		Modbus(TYPE A)	○	○	○
	KRN50	Modbus	○	○	×
		Modbus(TYPE A)	○	○	○
DELTA	DTB Series	Modbus	○	○	×
		Modbus(TYPE A)	○	○	○
DANFOSS	FC Series	Modbus	×	×	×
		Modbus(TYPE A)	○	○	○
UNIVERSAL	UNIVERSAL	Modbus(Slave)	○	○	○
MODBUS MASTER	MODBUS MASTER	Modbus(Master)	○	○	○

※GP/LP connectable device list will keep updated according to the upgrade of GP Editor or additional patch. It is recommended to use the latest version of Editor.

※Applicable GP/LP firmware version is determined by GP Editor version. Whole GP system goes down if non-compatible firmware version is used.

※Visit our website (www.autonics.com) to check update of latest GP Editor and GP/LP firmware and to get more detailed instructions.

※Refer to the user manual to select proper communication cable between GP and controllers. (Sold separately)